



SAFETY DATA SHEET

Product Code: AB3A005 (BENTONITE)

Updated: 12/23/14

SECTION 1: IDENTIFICATION

PRODUCT NAME(s): Swell Clay, Conditioner

GENERIC NAME: Bentonite **MSDS CODE NO.** A202PABA005

SYNONYMS: Calcium Bentonite, Sodium Bentonite, Montmorillonite, Smectite Clay

CHEMICAL NAME: Sodium / Calcium Aluminum Silicate **CASE REGISTRY NO.** 1302-78-9

MANUFACTURING ADDRESS: Western Clay Company
620 East SR 24
Aurora, UT 84620 **CONTACT NUMBERS:** Emergency: 213-664-2121
Chemtec: 800-424-9300
Redmond Minerals: 866-735-7258

RECOMMENDED USE: Bentonite has a variety of uses. It can be used as a rheology modifier, binding agent, absorbent, filler and other i.e. for applications like: foundry, iron ore agglomeration, drilling, construction - civil engineering, filtration (i.e. oil, wine, beer), pharmaceutical and cosmetics, cat litter, food processing aids and feed additives.

USE RESTRICTIONS: There are no identified uses advised against.

SECTION 2: HAZARD IDENTIFICATION

GHS CLASSIFICATION Signal: Danger
Causes damage to the lungs through prolonged or repeated exposure if inhaled



HEALTH/PHYSICAL HAZARDS: Material dusts containing less than 1% free crystalline silica (quartz) are classified as nuisance particulates. Exposure to these dusts may cause irritation to eyes, ears, throat, and upper respiratory tract. This materials dust may contain more than 1% free silica as Quartz. Chronic (long term) exposure to air born free silica at levels higher than TLV=s may lead to the development of silicosis or other respiratory problems. (See Section VI)

HAZARD LISTING: Nuisance Particles are listed by ACGIH. Free Crystalline Silica as Quartz is listed by OSHA and ACGIH as a Hazardous Material.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCES:	CAS #	Percent (w/w)
Bentonite	1302-78-9	80-100%
Crystalline silica, quartz	14808-60-7	0-5%
Crystalline silica, cristobalite	14464-46-1	0-1%
Crystalline silica, tridymite	15468-32-3	0-1%
Water	7732-18-5	8-12%

SECTION 4: FIRST AID MEASURES

INHALATION: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

SKIN: Wash with soap and water. Get medical attention if irritation persists.

EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

INGESTION: Under normal conditions, first aid procedures are not required.

NOTES TO PHYSICIAN: Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

FLASH POINT RANGE:	Non-flammable Silicate Mineral	FLAMMABLE LIMITS:	LEL: NA UEL:NA
FIRE EXTINGUISHING MEDIA:	All standard firefighting media	SPECIAL EXPOSURE HAZARDS:	Not Applicable
NFPA RATINGS:	Health 0, Flammability 0, Reactivity 0	HMIS RATINGS:	Health 0*, Flammability 0, Reactivity 0, PPE: At
SPECIAL FIRE FIGHTING PROCEDURES:	Not applicable		

SECTION 6: ACCIDENTAL RELEASE MEASURES

MATERIAL SPILL OR RELEASE:	Avoid breathing dust; wear respirator approved for silica veering dust. Vacuum up to avoid generating airborne dust. Avoid using water. Product is slippery when wet.
WASTE DISPOSAL METHOD:	Product should be disposed of in accordance with applicable local, state, and federal regulations. There are no known environmental precautionary measures. Consider possible toxic or fire hazards associated with contaminating substances and use appropriate methods for collection, storage, and disposal.

SECTION 7: HANDLING AND STORAGE

HANDLING PRECAUTIONS:	This product contains quartz, cristobalite, and/or tridymite which may become airborne without a visible cloud. Avoid breathing dust. Avoid creating dusty conditions. Use only with adequate ventilation to keep exposer limits below permissible limits. Material is slippery when wet.
STORAGE INFORMATION:	Do not reuse empty container. Use good housekeeping in storage and work areas to prevent accumulation of dust. Close container when not in use. Keep from excessive heat.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION REQUIREMENTS:	Use approved industrial ventilation and local exhaust as required to maintain exposures below applicable exposure limits listed in section VI.
RESPIRATOR:	Use respirator approved by NIOSH/MSHA for silica bearing dust.
EYE PROTECTION:	Use safety glasses or goggles to protect against exposure.
HAND PROTECTION:	Normal work gloves.
SKIN PROTECTION:	Wear clothing appropriate for the work environment. Dusty clothing should be laundered before reuse. Use precautionary measures to avoid creating dust when removing or laundering clothing.
OTHER PPE:	None known.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	powder	COLOR:	Tan, Light Green, Red
BULKING VALUE:	90 lbs.	DENSITY:	70 lb/ft ³ powder or compact granular
MELTING POINT:	1450 °C	pH:	8-10
SOLUBILITY IN WATER:	Insoluble, Forms Colloidal Suspension	ODOR:	Mild earthy

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable	HAZARDOUS POLYMERIZATION:	None
INCOMPATIBILITY:	None	HAZARDOUS DECOMPOSITION PRODUCTS:	None

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICITY TESTS:	Oral	ND	Genotoxicity	ND
	Dermal	ND	Reproductive	ND
	Inhalation	ND	Primary Irritation Effect	ND
PRINCIPLE ROUTE OF EXPOSURE:	Eye or skin contact, inhalation			
SKIN:	Possible dying resulting in dermatitis			
EYES:	Mechanical irritant			
INGESTION:	Accidentally this material will generally cause no adverse effects. Minor intestinal irritation is possible.			
INHALATION:	(Acute, Short Term) Exposure to excessive concentrations of dust may cause irritation of the Nose, Throat, and Upper Respiratory Tract. (Chronic, Long Term) Chronic exposure to crystalline silica such as quartz where levels exceed TLV=s can cause Silicosis and other respiratory problems. Short term exposure to very high concentrations may lead to increased risk and accelerated onset of silicosis and respiratory damage. Silicosis is a progressive, degenerative, disabling, and sometimes fatal lung disease characterized by coughing, shortness of breath, wheezing, and fibrotic changes in the lungs with scarring and nodular formation.			
PERMISSIBLE EXPOSURE LIMITS: (For air contaminants 8 hour TWA)	Bentonite as Nuisance Dust		OSHA PEL	ACGIH TLV
	Total Dust		15mg/m ³	Not determined
	Respirable Dust		5mg/m ³	Not determined
	Crystalline Quartz (respirable)		0.1mg/m ³	0.1mg/m ³
CARCINOGENICITY:	Bentonite is not listed by NTP, IARC, or OSHA. The International Agency for Research on Cancer (IARC) has determined that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources can cause lung cancer in humans, and experimental evidence that tridymite as a carcinogen in animals. The National Toxicology Program (NTP) classifies respirable crystalline silica as "Known to be a human carcinogen".			

SECTION 12: ECOLOGICAL INFORMATION

MOBILITY (water/soil/air):	ND	FISH TOXICITY:	TLM96: 10000 ppm (Oncorhynchus mykiss)
PERSISTENCE/DEGRADABILITY:	ND	CRUSTACEANS TOXICITY:	ND
BIO-ACCUMULATION:	ND	ALGAE TOXICITY:	ND
CHEMICAL FATE INFORMTION:	ND	OTHER INFORMATION:	ND

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:	Product should be disposed of in accordance with applicable local, state, and federal regulations. There are no known environmental precautionary measures. Consider possible toxic or fire hazards associated with contaminating substances and use appropriate methods for collection, storage, and disposal.
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SECTION 14: TRANSPORTATION INFORMATION

SHIPPING NAME:	Common Ground Clay (NOIBN)	HAZZARD CLASS:	Not Hazardous	CAUTIONARY LABELING:	None required
LAND TRANSPORTATION RESTRICTIONS:	DOT: Not Restricted	CANADIAN TDG:	Not Restricted	ADR:	Not Restricted
AIR TRANSPORTATION RESTRICTIONS:	ICAO / IATA: Not Restricted				
SEA TRANSPORTATION RESTRICTIONS:	IMDG: Not Restricted				

SECTION 15: REGULATORY INFORMATION

U.S. REGULATIONS:

US TSCA Inventory	All components listed on inventory or are exempt.
EPA SARA Title III Extremely Hazardous Substances	Not applicable
EPA SARA (311, 312) Hazard Class	Acute Health Hazard, Chronic Health Hazard
EPA SARA (313) Chemicals	This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372)
EPA CERCLA/Superfund Reportable Spill Quantity	Not applicable
EPA RCRA Hazardous Waste Classification	If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA
California Proposition 65	The California Proposition 65 regulations apply to this product.
MA Right-to-Know Law	One or more components listed.
NJ Right-to-Know Law	One or more components listed.
PA Right-to-Know Law	One or more components listed.

CANADIAN REGULATIONS:

Canadian DSL Inventory	All components listed on inventory.
WHMIS Hazard Class	D2A Very Toxic Materials Crystalline Silica

SECTION 16: OTHER INFORMATION

ADDITIONAL INFORMATION:

This SDS was updated on 12/23/14. For additional information on the use of this product, or for questions about the Safety Data Sheet for this or other Redmond Minerals, INC. products, please contact:



Redmond Minerals, INC.

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